

REMARKS/ARGUMENTS

Claims 1, 2, 4, 5, 9, 10, 19, 20, and 30-39 are pending in the application. The Applicants hereby request further examination and reconsideration of the application in view of these remarks.

Rejections Under 35 U.S.C. 103

In paragraph 3, the Examiner rejected claims 1, 2, 4, 5, 9, 10, 19, 20, and 30-39 under 35 U.S.C. 103(a) as being unpatentable over Sato in view of Borland et al. ("Borland") and further in view of Tuoriniemi et al. ("Tuoriniemi").

Claim 1

For the following reasons, the Applicant submits that claim 1 is allowable over Sato in view of Borland and further in view of Tuoriniemi.

Claim 1 recites "[a] cordless telephone, comprising: a remote handset; a base unit matched to said remote handset; an MPEG audio player integrated within at least one of said remote handset and said base unit; and a summer to digitally sum a digitally synthesized ring tone with an MPEG audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music."

The Examiner admitted that Sato fails to "disclose an MPEG audio player integrated within at least one of the remote handset and the base unit." (Office Action, page 3.) The Examiner asserted, however, that Borland teaches an MPEG audio player integrated within at least one of the remote handset and the base unit, and that one of ordinary skill in the art at the time the invention was made would be motivated to combine the teaching of Borland into the system of Sato in order to provide a high-quality audio signal. (Id.)

The Applicants respectfully disagree, because the Examiner's proposed motivation to combine Sato and Borland lacks merit. Under the obviousness analysis provided by the Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 127 S. Ct. 1727 (2007), it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed (Slip. Op. at 144). Moreover, in her May 3, 2007 Memorandum to Technology Center Directors, Margaret A. Focarino, Deputy Commissioner for Patent Operations, clearly states that "in formulating a rejection under 35 U.S.C. §103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed." In the present application, Sato fails to disclose, and the Examiner has failed to identify, any actual problems with the "quality" of audio produced by the handset of Sato that would support the Examiner's proposed modification. Rather, Sato discloses the use of digital audio that is transmitted to a handset and then converted to an analog signal for output to a speaker. (See Sato, paragraph 0020.) Borland teaches the use of MPEG audio compression to overcome a bandwidth bottleneck created by the public switched telephone network (PSTN). Because MPEG compression is a lossy compression algorithm, however, it reduces audio quality, rather than improving it. Thus, one of ordinary skill in the art at the time the invention was made would not have been motivated to combine the teaching of Borland into the system of Sato.

The Examiner further admitted that the combination of Sato and Borland fails to disclose "a summer adapted to digitally sum a digitally synthesized ring tone with an audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music." (Office Action, page 3.) The Examiner alleged, however, that Tuoriniemi, column 6, lines 39-43, teaches this limitation. The Applicants again disagree.

Tuoriniemi, column 6, lines 39-43, states that "[t]his combined system of digital cellular telephone and audio device gives a user a hands-free option and virtually ultimate mobility to listen to an audio program while being able to hear telephone audio ring signals and initiate telephone calls through a common headset." Tuoriniemi implements this feature, however, by connecting both (i) the analog output from an audio device 68 and (ii) the analog output from a microcontroller 49 within a housing 22 of a combined personal communication and audio set to a single-pole, double-throw controllable switch 38. (A single-pole, double-throw switch can connect either of two terminals (but not both) to a common terminal.) The controllable switch thus routes only one of the output signals to a headset speaker. (See Tuoriniemi, column 5, lines 47-59 and Figure 3.) As such, controllable switch 38 is not a digital summer, nor are the analog outputs from device 68 or microcontroller 49 digital signals. Moreover, a user is unable to hear both output signals at the same time. Thus, Tuoriniemi neither teaches nor even suggests "a summer to digitally sum a digitally synthesized ring tone with an MPEG audio bit stream to allow a user of said cordless telephone to hear said cordless telephone ringing along with music," as recited by claim 1.

For all these reasons, the Applicants submit that claim 1 is allowable over Sato, Borland, and Tuoriniemi. For similar reasons, the Applicants submit that claims 9 and 19 are also allowable over the cited references.

Since claims 2, 4, 5, 10, 20, and 30-39 depend directly or indirectly from claim 1, 9, or 19, it is further submitted that those claims are also allowable over the cited references.

The Applicants therefore respectfully submit that the rejections of claims 1, 2, 4, 5, 9, 10, 19, 20, and 30-39 under Section 103 have been overcome.

Claim 10

Claim 10 recites "[t]he method of integrating an MPEG audio player in a cordless telephone according to claim 9, wherein: said muting pauses said playing of said pre-loaded MP3 music."

The Examiner asserted that Tuoriniemi, column 9, lines 17-20, teaches that muting pauses the playing of the pre-loaded music. (See Office Action, page 5.) The Applicants respectfully disagree.

Tuoriniemi, column 9, lines 17-20, states that "[h]eadset 1010 alternatively be used to listen to an audio broadcast program or storage digital audio program from the audio device 68 by connecting the headset 10 connector 26 to the jack 86 and audio device housing 70." The Applicants respectfully submit that Tuoriniemi teaches nothing whatsoever regarding pausing the playing of music.

The Applicants therefore respectfully submit that the above discussion provides additional reasons for the assertions that (i) claim 10 is allowable over the cited references and (ii) for similar reasons, claim 20 is allowable over the cited references.

Claim 31

Claim 31 recites the limitations that (i) the telephone audio signal is monaural; (ii) the MPEG audio bit stream has a plurality of stereo channels; and (iii) the summer is adapted to digitally sum the monaural telephone audio signal into each of the plurality of stereo channels of the MPEG audio bit stream, such that a sense of balance in the user is improved.

The Examiner has not provided any explanation whatsoever to support the rejection of claim 31. Indeed, the Examiner has failed even to allege that the cited references teach or even suggest the limitation recited in claim 31.

The Applicants therefore respectfully submit that the rejection of claim 31 is improper and should be withdrawn. For similar reasons, the rejection of claim 36 is also improper and should be withdrawn.

Claim 32

Claim 32 recites the limitation that both the MPEG audio player and the summer are jointly implemented as a single digital signal processor adapted to digitally sum the digitally synthesized ring tone with the MPEG audio bit stream.

The Examiner asserted, inter alia, that Tuoriniemi, column 6, lines 39-43, teaches that both said MPEG audio player and said summer are jointly implemented as a single digital signal processor adapted to digitally sum the digitally synthesized ring tone with the audio bit stream. (See Office Action, page 6.) The Applicants respectfully disagree.

Tuoriniemi, column 6, lines 39-43, states that “[t]his combined system of digital cellular telephone and audio device gives a user a hands-free option and virtually ultimate mobility to listen to an audio program while being able to hear telephone audio ring signals and initiate telephone calls through a common headset.” As discussed above, however, Tuoriniemi implements this feature by connecting both (i) the analog output from an audio device 68 and (ii) the analog output from a microcontroller 49 within a housing 22 of a combined personal communication and audio set to a single-pole, double-throw controllable switch 38. (A single-pole, double-throw switch can connect either of two terminals (but not both) to a common terminal.) The controllable switch thus routes only one of the output signals to a headset speaker. (See Tuoriniemi, column 5, lines 47-59 and Figure 3.)

Accordingly, Tuoriniemi teaches nothing whatsoever regarding either a digital signal processor or the joint implementation of an MPEG audio player and a summer as a single digital signal processor. Tuoriniemi therefore fails to teach or even suggest that “both the MPEG audio player and the summer are jointly implemented as a single digital signal processor adapted to digitally sum the digitally synthesized ring tone with the MPEG audio bit stream,” as recited in claim 32.

The Applicants therefore respectfully submit that the above discussion provides additional reasons for the assertions that (i) claim 32 is allowable over the cited references and (ii) for similar reasons, claim 37 is allowable over the cited references.

Since claims 33-34 and 38-39 depend directly or indirectly from claim 32 or 37, it is further submitted the above discussion provides additional reasons for the assertion that those claims are also allowable over the cited references.

Claim 33

Claim 33 recites “[t]he cordless telephone according to claim 32, wherein: the digital signal processor is adapted to digitally sum the digitally synthesized ring tone with the MPEG audio bit stream by: (i) decoding the MPEG audio bit stream to produce a digital reconstructed audio signal, and (ii) digitally summing the digital reconstructed audio signal with the digitally synthesized ring tone to produce a digital summed audio signal.”

The Examiner has not provided any explanation whatsoever to support the rejection of claim 33. Indeed, the Examiner has failed even to allege that the cited references teach or even suggest the limitations recited in claim 33.

The Applicants therefore respectfully submit that the above discussion provides additional reasons for the assertions that (i) the rejection of claim 34 is improper and should be withdrawn and (ii) for similar reasons, the rejection of claim 38 is improper and should be withdrawn.

Claim 34

Claim 34 depends from claim 33 and additionally recites that "the cordless telephone further comprises: a digital-to-analog converter connected to said digital signal processor to receive the digital summed audio signal and to produce an analog audio signal suitable for outputting to the user."

The Examiner has not provided any explanation whatsoever to support the rejection of claim 34. Indeed, the Examiner has failed even to allege that the cited references teach or even suggest the limitation recited in claim 34.

The Applicants therefore respectfully submit that the above discussion provides additional reasons for the assertions that (i) the rejection of claim 34 is improper and should be withdrawn and (ii) for similar reasons, the rejection of claim 39 is improper and should be withdrawn.

Conclusion

For the reasons set forth above, the Applicants respectfully submit that the rejections of claims 1, 2, 4, 5, 9, 10, 19, 20, and 30-39 have been overcome.

In view of the above remarks, the Applicants believe that the pending claims are in condition for allowance. Therefore, the Applicants believe that the entire application is in condition for allowance, and early and favorable action is respectfully solicited.

Fees

During the pendency of this application, the Commissioner for Patents is hereby authorized to charge payment of any filing fees for presentation of extra claims under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17 or credit any overpayment to Mendelsohn, Drucker, & Associates, P.C. Deposit Account No. 50-0782.

The Commissioner for Patents is hereby authorized to treat any concurrent or future reply, requiring a petition for extension of time under 37 CFR 1.136 for its timely submission, as incorporating a petition for extension of time for the appropriate length of time if not submitted with the reply.

Respectfully submitted,

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